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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,520	02/22/2002	Mineo Nomoto	16869P-041600US	8662
20350	7590	02/23/2004	EXAMINER	
TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834			PHAM, HOA Q	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/082,520

Applicant(s)

NOMOTO ET AL.

Examiner

Hoa Q. Pham

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 20-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group A (claims 1-6 and 8-16) on November 10, 2003 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

Drawings

3. The drawings are objected to because the terms "special waveform" in figures 2 and 13 are incorrect, should they be changed to --spectral waveform--?. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 6, 11, 12, and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Regarding claims 6, 11, and 16, the phrase "or the like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

b. Claim 12 is not complete because it is not ended by a period ".".

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6, 8-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nyui et al (6,004,187) in view of Wiswesser et al (6,159,073).

Regarding claims 1, 2, 12 and 17; Nyui et al discloses a polishing apparatus comprises a white light source (101,111) for irradiating white light onto the surface of a thin film (5a), detector (109) detects the reflected light from the sample and determines the thickness of the thin film by using the spectral waveform (figures 5 and 7) of the reflected light. Nyui et al does not explicitly teach that the thin film is a transparent thin

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film; however, such a feature is known in the art as taught by Wiswesser et al.

Wiswesser et al, from the same field of endeavor, teach that the thin film to be determined is a transparent or semi-transparent thin film layer, such as oxide or nitride layer (column 7, lines 10-17). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the device of Nyui et al to measure the thickness of the transparent thin film because it does not matter what kinds of the thin film the device would function in the same manner.

Regarding claims 3-4, 6, 8- 9, 11, 13-14, 16, and 18-19; Nyui et al teaches that the characteristic quantity of the spectral waveform of the reflected light is based on the reflected intensity of the spectral waveform (column 5, lines 4-21 and column 10 lines 35-62, figures 5 and 7).

Regarding claims 5, 10, 15, Nyui et al teaches that the absolute film thickness $d(A)$ measured with the first measurement means 2a is considered as a reference (column 11, lines 49-56).

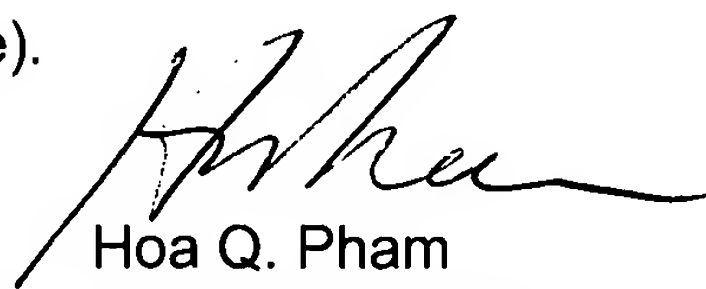
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Following references are relative to thickness detection method and apparatus: Ushio et al (6,670,200), Hirose et al (US 2002/0197871), Nyui et al (6,503,361), Ushio et al (6,271,047) and Nyui et al (6,551,172).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (571) 272-2426. The examiner can normally be reached on 6:30 AM to 5 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hoa Q. Pham
Primary Examiner
Art Unit 2877

HP
February 3, 2004

Please type a plus sign (+) inside this box



PTO/SB/08A (08-00)

Approved for use through 10/31/2002. OMB 0851-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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<p>Substitute for form 1449A/PTO</p> <h2 style="text-align: center;">INFORMATION DISCLOSURE STATEMENT BY APPLICANT</h2> <p style="text-align: center;">(use as many sheets as necessary)</p>		<p style="text-align: right;"><i>Complete if Known</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Application Number</td> <td>10/082,520</td> </tr> <tr> <td>Filing Date</td> <td>2/22/02</td> </tr> <tr> <td>First Named Inventor</td> <td>Nomoto, Mineo</td> </tr> <tr> <td>Group Art Unit</td> <td>2877</td> </tr> <tr> <td>Examiner Name</td> <td>Pham</td> </tr> <tr> <td>Attorney Docket Number</td> <td>16869P-041600US</td> </tr> </table>		Application Number	10/082,520	Filing Date	2/22/02	First Named Inventor	Nomoto, Mineo	Group Art Unit	2877	Examiner Name	Pham	Attorney Docket Number	16869P-041600US
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Examiner Name	Pham														
Attorney Docket Number	16869P-041600US														
Sheet	1	of	1												

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 10/082520
 02/22/02

U.S. PATENT DOCUMENTS						
Examiner Initials *	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH			None		
	AI					
	AJ					
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None

FOREIGN PATENT DOCUMENTS								
Examiner Initials *	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)				
HP	AU	JP	2000-310512		Hitachi, Ltd.	11-07-2000		Abstract
HP	AV	JP	2000-077371		Nikon Corp.	03-14-2000		Abstract
HP	AW	JP	10-294297		Nikon Corp.	11-04-1998		Abstract
HP	AX	JP	10-083977		Applied Materials	03-31-1998		Abstract
HP	AY	JP	09-007985		Applied Materials	01-10-1997		Abstract
HP	AZ	JP	08-252113		Matsushita Electric	09-09-1994		Abstract
	BA							

Examiner Signature		Date Considered	2/21/04
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

PA 3203214 v1

Notice of References Cited	Application/Control No. 10/082,520	Applicant(s)/Patent Under Reexamination NOMOTO ET AL.	
	Examiner Hoa Q. Pham	Art Unit 2877	Page 1 of 1

U.S. PATENT DOCUMENTS					
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,551,172	04-2003	Nyui et al.	451/6
	B	US-6,271,047	08-2001	Ushio et al.	438/14
	C	US-6,503,361	01-2003	Nyui et al.	156/345.13
	D	US-2002/0197871	12-2002	Hirose et al.	438/689
	E	US-6,670,200	12-2003	Ushio et al.	438/14
	F	US-6,004,187	12-1999	Nyui et al.	451/5
	G	US-6,159,073	12-2000	Wiswesser et al.	451/6
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS						
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	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS		
*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
 Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.